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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/667,264 09/19/2003 Gary B. Merrill 2003P12157US 6056 **EXAMINER** 7590 02/28/2006 Siemens Corporation MILLER, DANIEL H Intellectual Property Department ART UNIT PAPER NUMBER 170 Wood Avenue South Iselin, NJ 08830 1775

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/667,264	MERRILL ET AL.
	Examiner	Art Unit
	Daniel Miller	1775
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).		
Status		
 Responsive to communication(s) filed on This action is FINAL. 2b)⊠ This action is non-final. Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. 		
Disposition of Claims		
 4) Claim(s) 1-26 is/are pending in the application. 4a) Of the above claim(s) 12-25 is/are withdrawn from consideration. 5) Claim(s) 1-11 is/are allowed. 6) Claim(s) 26 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. 		
Application Papers		
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.		
Priority under 35 U.S.C. § 119		
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 		
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	

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DETAILED ACTION

Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - Claims 1-11 and 26, drawn to ceramic matrix composite, classified in class 428, subclass 313.7.
 - II. Claims,12-25 drawn to a method of making a ceramic composite, classified in class 427, subclass 331.

The inventions are distinct, each from the other because of the following reasons:

- 2. Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different method. In the instant case the product could be made without a green body ceramic matrix.
- 3. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.
- 4. During a telephone conversation with John Musone on 2/2/2006 a provisional election was made with out traverse to prosecute the invention of group I, claims 1-11

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and 26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-25 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mason et al (U.S. 5,962,076) in view of Morrison (U.S. 6,733,907 B2).
- 7. Mason teaches a gas turbine engine having a two layer composition (figure 3).

 One layer is a ceramic matrix composite with silicon carbide fibres in an alumina matrix (column 2 line 45-50). The second layer comprises hollow aluminum or aluminosilicate spheres in an aluminum phosphate matrix (column 1 line 37-45). Regarding claim 5, the to layered structure of Mason can be formed separately and then glued to one another (column 4 line 47-51). Mason is silent as to the presence of a ceramic powder or a silica sol binder.
- 8. Morrison teaches a ceramic powder mixed with a silica sol binder in order to create a stronger turbine engine compartment (column 13 line 5-25).

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9. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Mason with the teachings of Morrison in order to form a stronger composite ceramic.

Allowable Subject Matter

10. Claims 1-11 are allowed. The art of record does not teach the combined limitations of claim 1. Specifically, with the aluminum hydroxyl chloride binder filling the gaps between the claimed particles.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Miller whose telephone number is (571) 272-1534. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Miller

JENNIFER MCNEIL